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<210> 2
<211> 665
<212> PRT
<213> Homo sapiens

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Pro Phe Val Glu Tyr Asn Thr Ser His Ile Leu Glu Ala Ile Asn Ile
35 40 45
Asn Cys Ser Lys Leu Met Lys Arg Arg Leu Gln Gln Asp Lys Val Leu
50 55 60
Ile Thr Glu Leu Ile Gln His Ser Ala Lys His Lys Val Asp Ile Asp
65 70 75 80
Cys Ser Gln Lys Val Val Val Tyr Asp Gln Ser Ser Gln Asp Val Ala
85 90 95
Ser Leu Ser Ser Asp Cys Phe Leu Thr Val Leu Leu Gly Lys Leu Glu
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Lys Ser Phe Asn Ser Val His Leu Leu Ala Gly Gly Phe Ala Glu Phe
115 120 125
Ser Arg Cys Phe Pro Gly Leu Cys Glu Gly Lys Ser Thr Leu Val Pro
130 135 140

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Thr Cys Ile Ser Gln Pro Cys Leu Pro Val Ala Asn Ile Gly Pro Thr
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 Arg Ile Leu Pro Asn Leu Tyr Leu Gly Cys Gln Arg Asp Val Leu Asn
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 Lys Glu Leu Met Gln Gln Asn Gly Ile Gly Tyr Val Leu Asn Ala Ser
 180 185 190
 Asn Thr Cys Pro Lys Pro Asp Phe Ile Pro Glu Ser His Phe Leu Arg
 195 200 205
 Val Pro Val Asn Asp Ser Phe Cys Glu Lys Ile Leu Pro Trp Leu Asp
 210 215 220
 Lys Ser Val Asp Phe Ile Glu Lys Ala Lys Ala Ser Asn Gly Cys Val
 225 230 235 240
 Leu Val His Cys Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile
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 Ala Tyr Ile Met Lys Arg Met Asp Met Ser Leu Asp Glu Ala Tyr Arg
 260 265 270
 Phe Val Lys Glu Lys Arg Pro Thr Ile Ser Pro Asn Phe Asn Phe Leu
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 Gly Gln Leu Leu Asp Tyr Glu Lys Lys Ile Lys Asn Gln Thr Gly Ala
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 Ser Gly Pro Lys Ser Lys Leu Lys Leu Leu His Leu Glu Lys Pro Asn
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 Glu Pro Val Pro Ala Val Ser Glu Gly Gly Gln Lys Ser Glu Thr Pro
 325 330 335
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 Arg Pro Val His Pro Ala Ser Val Pro Ser Val Pro Ser Val Gln Pro
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 Leu His Gly Phe Ser Ser Ser Glu Asp Ala Leu Glu Tyr Tyr Lys Pro
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 Gln Glu Leu Ser Glu Gln Thr Pro Glu Thr Ser Pro Asp Lys Glu Glu
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 Ser Lys Arg Leu His Ser Val Arg Thr Ser Ser Ser Gly Thr Ala Gln
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 Arg Ser Leu Leu Ser Pro Leu His Arg Ser Gly Ser Val Glu Asp Asn
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 Thr Lys Ser Ala Gly Leu Gly Leu Lys Gly Trp His Ser Asp Ile Leu
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 Ala Pro Gln Thr Ser Thr Pro Ser Leu Thr Ser Ser Trp Tyr Phe Ala
 545 550 555 560
 Thr Glu Ser Ser His Phe Tyr Ser Ala Ser Ala Ile Tyr Gly Gly Ser
 565 570 575

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Ala	Ser	Tyr	Ser	Ala	Tyr	Ser	Cys	Ser	Gln	Leu	Pro	Thr	Cys	Gly	Asp
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Gln	Val	Tyr	Ser	Val	Arg	Arg	Arg	Gln	Lys	Pro	Ser	Asp	Arg	Ala	Asp
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Ser	Arg	Arg	Ser	Trp	His	Glu	Glu	Ser	Pro	Phe	Glu	Lys	Gln	Phe	Lys
	610					615					620				
Arg	Arg	Ser	Cys	Gln	Met	Glu	Phe	Gly	Glu	Ser	Ile	Met	Ser	Glu	Asn
	625				630					635					640
Arg	Ser	Arg	Glu	Glu	Leu	Gly	Lys	Val	Gly	Ser	Gln	Ser	Ser	Phe	Ser
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Gly	Ser	Met	Glu	Ile	Ile	Glu	Val	Ser							
			660					665							

<210> 3
 <211> 156
 <212> PRT
 <213> Homo sapiens

Asp	Gly	Ser	Pro	Leu	Ser	Asn	Ser	Gln	Pro	Ser	Phe	Pro	Val	Glu	Ile
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Leu	Pro	Phe	Leu	Tyr	Leu	Gly	Cys	Ala	Lys	Asp	Ser	Thr	Asn	Leu	Asp
			20				25					30			
Val	Leu	Glu	Glu	Phe	Gly	Ile	Lys	Tyr	Ile	Leu	Asn	Val	Thr	Pro	Asn
	35					40					45				
Leu	Pro	Asn	Leu	Phe	Glu	Asn	Ala	Gly	Glu	Phe	Lys	Tyr	Lys	Gln	Ile
	50					55					60				
Pro	Ile	Ser	Asp	His	Trp	Ser	Gln	Asn	Leu	Ser	Gln	Phe	Phe	Pro	Glu
	65				70					75					80
Ala	Ile	Ser	Phe	Ile	Asp	Glu	Ala	Arg	Gly	Lys	Asn	Cys	Gly	Val	Leu
				85				90						95	
Val	His	Cys	Leu	Ala	Gly	Ile	Ser	Arg	Ser	Val	Thr	Val	Thr	Val	Ala
			100					105					110		
Tyr	Leu	Met	Gln	Lys	Leu	Asn	Leu	Ser	Met	Asn	Asp	Ala	Tyr	Asp	Ile
		115				120					125				
Val	Lys	Met	Lys	Lys	Ser	Asn	Ile	Ser	Pro	Asn	Phe	Asn	Phe	Met	Gly
	130					135					140				
Gln	Leu	Leu	Asp	Phe	Glu	Arg	Thr	Leu	Gly	Leu	Ser				
	145					150					155				

<210> 4
 <211> 156
 <212> PRT
 <213> Homo sapiens

Asp	Gly	Ser	Pro	Val	Pro	Ser	Ser	Gln	Pro	Ala	Phe	Pro	Val	Gln	Ile
1				5				10					15		
Leu	Pro	Tyr	Leu	Tyr	Leu	Gly	Cys	Ala	Lys	Asp	Ser	Thr	Asn	Leu	Asp
			20				25					30			
Val	Leu	Gly	Lys	Tyr	Gly	Ile	Lys	Tyr	Ile	Leu	Asn	Val	Thr	Pro	Asn
		35					40					45			

Leu Pro Asn Ala Phe Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile
 50 55 60
 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu
 65 70 75 80
 Ala Ile Ser Phe Ile Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu
 85 90 95
 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala
 100 105 110
 Tyr Leu Met Gln Lys Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe
 115 120 125
 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
 130 135 140
 Gln Leu Leu Asp Phe Glu Arg Thr Leu Gly Leu Ser
 145 150 155

<210> 5
 <211> 156
 <212> PRT
 <213> Homo sapiens

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 Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln Ile
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 Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu Glu
 20 25 30
 Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro Asn
 35 40 45
 Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln Ile
 50 55 60
 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro Glu
 65 70 75 80
 Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val Leu
 85 90 95
 Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val Ala
 100 105 110
 Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp Leu
 115 120 125
 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
 130 135 140
 Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu
 145 150 155

<210> 6
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 6
 Leu Ser Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile
 1 5 10 15
 Leu Pro His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp
 20 25 30

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<210> 7
<211> 155
<212> PRT
<213> Homo sapiens
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<210> 8
<211> 154
<212> PRT
<213> Homo sapiens
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<400> 8
Ser Asp Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile
1 5 10 15

Leu Pro Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln
 20 25 30
 Gly Leu Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser
 35 40 45
 Cys Pro Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val
 50 55 60
 Glu Asp Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile
 65 70 75 80
 Ser Phe Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His
 85 90 95
 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu
 100 105 110
 Ile Gln Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys
 115 120 125
 Gln Arg Arg Gly Val Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu
 130 135 140
 Leu Gln Leu Glu Thr Gln Val Leu Cys His
 145 150

<210> 9
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 9
 Ser Ser Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu Ile
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 20 25 30
 Met Leu Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala Asn
 35 40 45
 Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val
 50 55 60
 Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile
 65 70 75 80
 Asp Phe Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His
 85 90 95
 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu
 100 105 110
 Met Arg Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys
 115 120 125
 Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu
 130 135 140
 Leu Gln Phe Glu Ser Gln Val Leu Ala Pro
 145 150

<210> 10
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 10

Ser Ser Cys Gly Thr Pro Leu His Asp Gln Gly Gly Pro Val Glu Ile
 1 5 10 15
 Leu Pro Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ala Arg Arg Asp
 20 25 30
 Met Leu Asp Ala Leu Gly Ile Thr Ala Leu Leu Asn Val Ser Ser Asp
 35 40 45
 Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val
 50 55 60
 Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile
 65 70 75 80
 Glu Tyr Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His
 85 90 95
 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu
 100 105 110
 Met Met Lys Lys Arg Val Arg Leu Glu Glu Ala Phe Glu Phe Val Lys
 115 120 125
 Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu
 130 135 140
 Leu Gln Phe Glu Ser Gln Val Leu Ala Thr
 145 150

<210> 11
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 11
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 20 25 30
 Phe Leu Ala Asn Leu His Ile Thr Ala Leu Leu Asn Val Ser Arg Arg
 35 40 45
 Thr Ser Glu Ala Cys Met Thr His Leu His Tyr Lys Trp Ile Pro Val
 50 55 60
 Glu Asp Ser His Thr Ala Asp Ile Ser Ser His Phe Gln Glu Ala Ile
 65 70 75 80
 Asp Phe Ile Asp Cys Val Arg Glu Lys Gly Gly Lys Val Leu Val His
 85 90 95
 Cys Glu Ala Gly Ile Ser Arg Ser Pro Thr Ile Cys Met Ala Tyr Leu
 100 105 110
 Met Lys Thr Lys Gln Phe Arg Leu Lys Glu Ala Phe Asp Tyr Ile Lys
 115 120 125
 Gln Arg Arg Ser Met Val Ser Pro Asn Phe Gly Phe Met Gly Gln Leu
 130 135 140
 Leu Gln Tyr Glu Ser Glu Ile Leu Pro Ser
 145 150

<210> 12
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 12

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Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu Val
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Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile Pro
      20          25          30
Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu Gly
      35          40          45
Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp Ser
      50          55          60
Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe Asn
      65          70          75          80
Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala Leu
      85          90          95
Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr Ser
      100          105          110
Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys Met
      115          120          125
Asp Val Lys Ser Ala Leu Ser Tyr Val Arg Gln Asn Arg Glu Ile Gly
      130          135          140
Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg Leu
      145          150          155          160
Ala Lys Glu

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<210> 13

<211> 41

<212> PRT

<213> Homo sapiens

<400> 13

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Lys Ala Lys Ala Ser Asn Gly Cys Val Leu Val His Cys Leu Ala Gly
 1          5          10          15
Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met Lys Arg Met
      20          25          30
Asp Met Ser Leu Asp Glu Ala Tyr Arg
      35          40

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<210> 14

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

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<210> 15

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<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 15

ttggcttctc caggtgcagc agcttgagtt

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<210> 16

<211> 10

<212> PRT

<213> Homo sapiens

<400> 16

Val His Cys Leu Ala Gly Ile Ser Arg Ser
1 5 10

<210> 17

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Conserved homology sequence of eight human DSP
amino acid sequences.

<400> 17

Asn Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly
1 5 10 15
Thr Asn Ile Leu Ala Tyr Leu Met
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<210> 18

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> RACE primer

<400> 18

catttctctgc gtgtgcctgt gaatgacagc tt

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<210> 19

<211> 35

<212> DNA

<213> Artificial Sequence

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<223> RACE primer

<400> 19

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<210> 21
 <211> 517
 <212> PRT
 <213> Homo sapiens

<400> 21

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			20					25					30		
Gln	Gln	Asn	Gly	Ile	Gly	Tyr	Val	Leu	Asn	Ala	Ser	Asn	Thr	Cys	Pro
		35					40					45			
Lys	Pro	Asp	Phe	Ile	Pro	Glu	Ser	His	Phe	Leu	Arg	Val	Pro	Val	Asn
	50					55					60				
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65					70					75					80
Phe	Ile	Glu	Lys	Ala	Lys	Ala	Ser	Asn	Gly	Cys	Val	Leu	Val	His	Cys
			85						90					95	
Leu	Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Ala	Ile	Ala	Tyr	Ile	Met
			100					105					110		
Lys	Arg	Met	Asp	Met	Ser	Leu	Asp	Glu	Ala	Tyr	Arg	Phe	Val	Lys	Glu
		115					120					125			
Lys	Arg	Pro	Thr	Ile	Ser	Pro	Asn	Phe	Asn	Phe	Leu	Gly	Gln	Leu	Leu
		130					135					140			
Asp	Tyr	Glu	Lys	Lys	Ile	Lys	Asn	Gln	Thr	Gly	Ala	Ser	Gly	Pro	Lys
145					150					155					160
Ser	Lys	Leu	Lys	Leu	Leu	His	Leu	Glu	Lys	Pro	Asn	Glu	Pro	Val	Pro
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Ala	Val	Ser	Glu	Gly	Gly	Gln	Lys	Ser	Glu	Thr	Pro	Leu	Ser	Pro	Pro
			180					185					190		
Cys	Ala	Asp	Ser	Ala	Thr	Ser	Glu	Ala	Ala	Gly	Gln	Arg	Pro	Val	His
		195					200					205			
Pro	Ala	Ser	Val	Pro	Ser	Val	Pro	Ser	Val	Gln	Pro	Ser	Leu	Leu	Glu
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225					230					235					240
Arg	Leu	Glu	Asp	Ser	Asn	Lys	Leu	Lys	Arg	Ser	Phe	Ser	Leu	Asp	Ile
			245						250					255	
Lys	Ser	Val	Ser	Tyr	Ser	Ala	Ser	Met	Ala	Ala	Ser	Leu	His	Gly	Phe
			260					265					270		
Ser	Ser	Ser	Glu	Asp	Ala	Leu	Glu	Tyr	Tyr	Lys	Pro	Ser	Thr	Thr	Leu
		275					280					285			
Asp	Gly	Thr	Asn	Lys	Leu	Cys	Gln	Phe	Ser	Pro	Val	Gln	Glu	Leu	Ser

290 295 300
 Glu Gln Thr Pro Glu Thr Ser Pro Asp Lys Glu Glu Ala Ser Ile Pro
 305 310 315 320
 Lys Lys Leu Gln Thr Ala Arg Pro Ser Asp Ser Gln Ser Lys Arg Leu
 325 330 335
 His Ser Val Arg Thr Ser Ser Ser Gly Thr Ala Gln Arg Ser Leu Leu
 340 345 350
 Ser Pro Leu His Arg Ser Gly Ser Val Glu Asp Asn Tyr His Thr Ser
 355 360 365
 Phe Leu Phe Gly Leu Ser Thr Ser Gln Gln His Leu Thr Lys Ser Ala
 370 375 380
 Gly Leu Gly Leu Lys Gly Trp His Ser Asp Ile Leu Ala Pro Gln Thr
 385 390 395 400
 Ser Thr Pro Ser Leu Thr Ser Ser Trp Tyr Phe Ala Thr Glu Ser Ser
 405 410 415
 His Phe Tyr Ser Ala Ser Ala Ile Tyr Gly Gly Ser Ala Ser Tyr Ser
 420 425 430
 Ala Tyr Ser Cys Ser Gln Leu Pro Thr Cys Gly Asp Gln Val Tyr Ser
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 Val Arg Arg Arg Gln Lys Pro Ser Asp Arg Ala Asp Ser Arg Arg Ser
 450 455 460
 Trp His Glu Glu Ser Pro Phe Glu Lys Gln Phe Lys Arg Arg Ser Cys
 465 470 475 480
 Gln Met Glu Phe Gly Glu Ser Ile Met Ser Glu Asn Arg Ser Arg Glu
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<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Autophosphorylation site from EGF receptor.

<400> 22

Asp Ala Asp Glu Tyr Leu

1

5